# KY Valid Course List Technology Education

#### **HOW TO USE THIS DOCUMENT**

This document contains a listing of course descriptions and parameters along with certifications that fit the parameters for a given course. The grade range and population information listed for each course are not absolute. Please choose the course that most closely represents the students in a given course.

#### **FXAMPLE**

John Q Middle School had 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> grade students taking a Creative Art course. This course would be linked to course number **500711: Creative Art – Comprehensive**, which shows with a recommended grade range of 6<sup>th</sup> – 12<sup>th</sup>.

The courses listed in this document are not meant to replace the course titles and course numbers already in use at the school level. Schools will link their courses in the STI Valid Course List to courses listed in this document.

Schools may have created courses that are very unique in order to meet students' needs. If a course does not meet the definition or content of one contained in this document, please use course number **909999**: **School Defined Course**, and code the correct content through the LEAD report.

#### **CERTIFICATIONS**

It is important to note that the certificates listed are the ones that fit *ALL* of the parameters for a specific course – there may be other certificates that can teach it with slightly more restrictive parameters.

It is very important to note that not all of the certificates listed under a specific course will meet the Highly Qualified Teacher standards as defined by The No Child Left Behind Act of 2001. Please refer to the Highly Qualified guidance documents located on the Education Professional Standards Board (EPSB) website at <a href="http://www.kyepsb.net/nclb.asp">http://www.kyepsb.net/nclb.asp</a>.

In addition to Highly Qualified considerations, please take note of the following information from *The Program of Studies for Kentucky Schools Primary-12* with regard to middle school courses that are offered for high school credit.

#### **High School Credit Earned in Middle School**

It is expected that most students will earn these credits during their high school years. However, local school districts may offer these courses to middle level students if the following criteria are met:

- the content and the rigor of the course is the same as established in the *Program of Studies*
- the students demonstrate mastery of the middle level content as specified in the Program of Studies
- the district has criteria in place to make reasonable determination that the middle level student is capable of success in the high school course
- the middle level course is taught by teachers with either secondary or middle level certification with appropriate content specialization

Although middle level courses list the Provisional and Standard Elementary Certificates, Grades 1-8 as allowable under the parameters of these courses, they will not meet the above requirements for courses that are offered for high school credit.

This document is a guide; therefore the EPSB disclaims any warranties as to the validity of the information in this document. Users of this document are responsible for verifying information received through cross-referencing the official record in the EPSB's Division of Certification. The EPSB shall not be liable to the recipient, or to any third party using this document or information obtained therefrom, for any damages whatsoever arising out of the use of this document.

Please contact Robin Chandler in KDE's Division of Curriculum at 502-564-2106 with any questions on content and curricula.

Please contact EPSB's Division of Certification at 502-564-4606 with any questions on credentials or permissions.

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# Technology Education (210000)

The Technology Education program is a study of technology, innovation, design, and engineering, which provides an opportunity for students to learn about the processes and knowledge related to technology that are needed to solve problems and extend human capabilities.

# Technology Education - General (210100)

Career Major - The Technology Education program is a study of technology, innovation, design, and engineering, which provides an opportunity for students to learn about the processes and knowledge related to technology that are needed to solve problems and extend human capabilities. Any course not found under this career major/sub code may be found in another career major/sub code within this program area.

#### 210101 - Technology Inventions and Impacts, Grades 6-8

Grade Level: 6 - 8

Credits: 0

**Description:** Students will investigate how commercially produced inventions/innovations impact us on a personal, social, economic, and environmental level. Using tools, machines, materials, and processes students will participate in engineering design activities to understand how criteria, constraints, and processes affect inventions. Brainstorming, visualizing, modeling, constructing, testing, and refining designs provide first-hand opportunities for students to understand the uses and impacts of inventions; past, present, and future. Students will develop skills in communicating design information and reporting results. This can be accomplished in a laboratory environment through a variety of instructional strategies. Instruction can be enriched through participation in Kentucky Technology Student Association challenges. This course may be 6 to 18 weeks in duration.

Content: Technology Education (CTE)

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEA	Standard Elementary Certificate, Grades 1-8
TES	Endorsement For Elementary And Secondary Classroom Teaching
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12

WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12	
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12	

#### 210102 - Technology Inventions and Impacts, Grade 9

Grade Level: 9 - 9

Credits: 1/2

**Description:** Students will investigate how commercially produced inventions/innovations impact us on a personal, social, economic, and environmental level. Using tools, machines, materials, and processes students will participate in engineering design activities to understand how criteria, constraints, and processes affect inventions. Brainstorming, visualizing, modeling, constructing, testing, and refining designs provide first-hand opportunities for students to understand the uses and impacts of inventions; past, present, and future. Students will develop skills in communicating design information and reporting results. This can be accomplished in a laboratory environment through a variety of instructional strategies. Instruction can be enriched through participation in Kentucky Technology Student Association challenges. This course may be 6 to 18 weeks in duration.

Content: Technology Education (CTE)

**Population:** General

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210103 - Technology Systems, Grades 6-8

Grade Level: 6 - 8

Credits: 0

**Description:** This course contains units of study addressing content and processes associated with technological systems and their various relationships. Students apply systems concepts to design and problem-solving activities related to Energy and Power, Information and Communication, Transportation, Manufacturing, Construction, Medical, Agriculture and Bio-Related Technologies. Laboratory activities engage students in using, managing, assessing, and understanding technology. This can be accomplished in a laboratory environment through a variety of instructional strategies. Instruction can be enriched through participation in Kentucky Technology Student Association challenges. This course may be 6 to 18 weeks in duration.

**Content:** Technology Education (CTE)

Population: General

KIT Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12

PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEA	Standard Elementary Certificate, Grades 1-8
TES	Endorsement For Elementary And Secondary Classroom Teaching
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

### 210104 - Technology Systems, Grade 9

Grade Level: 9 - 9

Credits: 1/2

**Description:** This course contains units of study addressing content and processes associated with technological systems and their various relationships. Students apply systems concepts to design and problem-solving activities related to Energy and Power, Information and Communication, Transportation, Manufacturing, Construction, Medical, Agriculture and Bio-Related Technologies. Laboratory activities engage students in using, managing, assessing, and understanding technology. This can be accomplished in a laboratory environment through a variety of instructional strategies. Instruction can be enriched through participation in Kentucky Technology Student Association challenges. This course may be 6 to 18 weeks in duration.

**Content:** Technology Education (CTE)

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts

B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210105 - Special Technology Topics, Grades 6-8

Grade Level: 6 - 8

Credits: 0

**Description:** Special Technology Topics allows the teacher to develop a course for in-depth exploration of technological topics. This course will allow students to gain a more comprehensive knowledge of a particular technology topic or explore specialized technology careers. This can be accomplished in a laboratory environment through a variety of instructional strategies. Instruction can be enriched through participation in Kentucky Technology Student Association challenges and/or Project Lead the Way-Gateway to Technology program materials. This optional/additional course may be 6 to 18 weeks in duration and may be taught at any grade level as appropriate.

**Content:** Technology Education (CTE)

**Population:** General

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEA	Standard Elementary Certificate, Grades 1-8
TES	Endorsement For Elementary And Secondary Classroom Teaching
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210106 - Special Technology Topics, Grade 9

**Grade Level:** 9 - 9 **Credits:** 1/2-1

**Description:** Special Technology Topics allows the teacher to develop a course for in-depth exploration of technological topics. This course will allow students to gain a more comprehensive knowledge of a particular technology topic or explore specialized technology careers. This can be accomplished in a laboratory environment through a variety of instructional strategies. Instruction can be enriched through participation in Kentucky Technology Student Association challenges and/or Project Lead the Way-Gateway to Technology program materials. This optional/additional course may be 6 to 18 weeks in duration and may be taught at any grade level as appropriate.

Content: Technology Education (CTE)

Population: General

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210107 - Technology Concepts

Grade Level: 9 - 12

Credits: 1

**Description:** This introductory course provides opportunities for students to study and apply technological systems, concepts, and processes. Group and individual activities engage students in creating ideas, developing innovations, and implementing design solutions utilizing the seven contexts of technological literacy (medical, agriculture and bio-related technologies, construction, manufacturing, transportation, power and energy, and communication systems). Technology content, resources, and laboratory activities encourage student applications of Kentucky Core Content. This can be accomplished through modular or other instructional strategies. Instruction should be enriched through participation in Kentucky Technology Student Association challenges. This course may be 18 or 36 weeks in duration.

**Content:** Technology Education (CTE)

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12

AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210108 - Technology Design and Applications

Grade Level: 9 - 12

Credits: 1-2

**Description:** This course will engage students in individual and/or team design activities in various technological contexts. Students will apply the technological problem solving process and develop critical thinking skills. These skills are applied in the researching, designing, prototyping, testing, and the modification of product(s). This can be accomplished through various laboratory instructional strategies utilizing the seven contexts of technological literacy. Instruction should be enriched through participation in Kentucky Technology Student Association challenges. This course may be 18 or 36 weeks in duration.

**Content:** Technology Education (CTE)

**Population:** General

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210109 - Impact of Contemporary Technology

Grade Level: 9 - 12

Credits: 1-2

**Description:** This course addresses the positive and negative impacts of technology and the intended and unintended results of its implementation. Students investigate and analyze critical historical and emerging issues affecting the creation, development, use and control of contemporary and future technology. Laboratory

activities will allow students to propose and implement alternative solutions. Students will measure, quantify, assess, and communicate the impacts of these proposals. This can be accomplished through various classroom and laboratory instructional strategies. Instruction should be enriched through participation in Kentucky Technology Student Association challenges. This course may be 18 or 36 weeks in duration.

**Content:** Technology Education (CTE)

Population: General

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

### 210110 - Conceptual Engineering Technology

Grade Level: 9 - 12

Credits: 1-2

**Description:** Engineering scope, content, and professional practices are presented through practical applications in this course. Students in engineering teams apply technology and Kentucky Core Content and skills to solve engineering design problems and innovate designs. Students research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors and ethics. Instruction should be enriched through participation in Kentucky Technology Student Association challenges. This course may be 18 or 36 weeks in duration.

Content: Technology Education (CTE)

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts

TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210111 - Special Problems in Technology

Grade Level: 9 - 12

Credits: 1-4

**Description:** This independent-study course is designed to allow a high school student to study in-depth a technology topic or issue. The experience will enable the student to gain a more comprehensive knowledge of a particular technological context. A variety of instructional strategies using multiple resources, specialized laboratories, and collaboration with mentoring experts should be encouraged. Independent studies and/or internships could be utilized. Instruction should be enhanced through participation in Kentucky Technology Student Association challenges. This course may be 18 to 36 weeks in duration.

Content: Technology Education (CTE)

Population: General

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210112 - Special Topics, Technology Education

Grade Level: 9 - 12

Credits: 1-4

**Description:** Special Technology Topics allows the teacher to develop a course for in-depth exploration of technological topics. This is a laboratory-based course designed to study a technological system or topic, and/or a recent technological advancement. This study should include how this advancement affects society and/or the environment. A culminating project integrating one or more of the seven contexts of technological literacy and the Kentucky Core Content is encouraged. It should include research, design, construction, analysis, writing, and presenting. Instruction should be enriched through participation in Kentucky Technology Student Association. This course may be 18 to 36 weeks in duration.

**Content:** Technology Education (CTE)

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210113 - Conceptual Engineering for Physical Science Credit

Grade Level: 9 - 12

Credits: 1

**Description:** The interdisciplinary nature of this student centered course requires that students know engineering in the fields of; mechanics, energy, and materials. Science content in the areas of motion and forces, interactions of matter and energy, atomic structure, and conservation of energy will also be addressed. These are the major science concepts from the Kentucky core content included in this course. In addition students should; investigate career opportunities in engineering fields, reflect upon historical and cultural perspective of science and engineering, develop a systematic problem solving approach, and refine their understanding of the interdependent nature of our technological and natural worlds.

Content: Introduction to Engineering For Physical Science Elective Credit

<b>XWVO</b>	Waiver For Vocational Education, Grades 5-12, 6-Month
C94	Teaching Minor: Industrial Arts
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
A94	Area Specialization: Industrial Arts
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12

X97	Emergency Certificate For Teaching Industrial Technology
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210127 - Introduction to Technology, Grades 6-8

Grade Level: 6 - 8

Credits: 0

**Description:** Students develop an understanding of the progression and scope of the technological systems (Energy and Power, Information and Communication, Transportation, Manufacturing, Construction, Medical Agriculture and Bio Related Technologies) through exploratory experiences. Using tools, machines, materials, and processes students will engage in group and/or individual activities to gain knowledge and experiences with the design process. This can be accomplished through modular or other instructional strategies with participation in Kentucky Technology Student Association challenges. This course may be 6 to 18 weeks in duration.

Content: Technology Education (CTE)

Population: General

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEA	Standard Elementary Certificate, Grades 1-8
TES	Endorsement For Elementary And Secondary Classroom Teaching
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

#### 210128 - Introduction to Technology, Grade 9

Grade Level: 9 - 9 Credits: 1/2

**Description:** Students develop an understanding of the progression and scope of the technological systems (Energy and Power, Information and Communication, Transportation, Manufacturing, Construction, Medical Agriculture and Bio Related Technologies) through exploratory experiences. Using tools, machines, materials, and processes students will engage in group and/or individual activities to gain knowledge and experiences with

the design process. This can be accomplished through modular or other instructional strategies with participation in Kentucky Technology Student Association challenges. This course may be 6 to 18 weeks in duration.

Content: Technology Education (CTE)
Population: General

KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
M95	Endorsement For Teaching Industrial Education Orientation And Exploration Levels, Grades 5-8
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
A94	Area Specialization: Industrial Arts
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
X98	Emergency Certificate For Teaching Technology Education
B94	Teaching Major: Industrial Arts
B95	Teaching Major: Industrial Education Orientation And Exploration Levels
C94	Teaching Minor: Industrial Arts
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12

## Technology Education - Pre-Engineering (219900)

Career Major - Pre-engineering is a four year sequence of courses which, when combined with traditional mathematics and science courses in high school, introduces students to the scope, rigor and discipline of engineering. Any course not found under this career major/sub code may be found in another career major/sub code with in this program area.

#### 219901 - Principles of Engineering

Grade Level: 9 - 12

Credits: 1

Description: Students explore technology systems and engineering processes to find out how math, science,

and technology help people.

Content: Pre-Engineering

Population: General

A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science
B50	Teaching Major: Science
B51	Teaching Major: Biology
B52	Teaching Major: Chemistry
B53	Teaching Major: Physics
B54	Teaching Major: Biology-Health
B56	Teaching Major: Earth Science
B57	Teaching Major: Geology
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C50	Teaching Minor: Science
C51	Teaching Minor: Biology
C52	Teaching Minor: Chemistry
C53	Teaching Minor: Physics
C56	Teaching Minor: Earth Science
C57	Teaching Minor: Geology
C71	Teaching Minor: Mathematics
CBI	Professional Certificate For College Faculty, Biology, Grades 8-12
CCH	Professional Certificate For College Faculty, Chemistry, Grades 8-12
CEA	Professional Certificate For College Faculty, Earth Science, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CPH	Professional Certificate For College Faculty, Physics, Grades 8-12
KBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
KCH	Professional Certificate For Teaching Chemistry, Grades 8 Through 12
KEA	Professional Certificate For Teaching Earth Science, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KPH	Professional Certificate For Teaching Physics, Grades 8-12
KPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
R51	Area Specialization: Science Limited To Biology
R52	Area Specialization: Science Limited To Chemistry
R53	Area Specialization: Science Limited To Physics

R56	Area Specialization: Science Limited To Earth Science
WBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
WCH	Professional Certificate For Teaching Chemistry, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WPH	Professional Certificate For Teaching Physics, Grades 8-12
WPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
A94	Area Specialization: Industrial Arts
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW	Approval for Project Lead the Way

## 219902 - Introduction to Engineering Design

Grade Level: 9 - 12

Credits: 1

**Description:** Using computer modeling software, students learn the design process. They solve design

problems as the develop, create, and analyze product models.

A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science
B50	Teaching Major: Science
B51	Teaching Major: Biology
B52	Teaching Major: Chemistry
B53	Teaching Major: Physics
B54	Teaching Major: Biology-Health
B56	Teaching Major: Earth Science
B57	Teaching Major: Geology
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C50	Teaching Minor: Science
C51	Teaching Minor: Biology
C52	Teaching Minor: Chemistry
C53	Teaching Minor: Physics
C56	Teaching Minor: Earth Science
C57	Teaching Minor: Geology
C71	Teaching Minor: Mathematics
CBI	Professional Certificate For College Faculty, Biology, Grades 8-12
CCH	Professional Certificate For College Faculty, Chemistry, Grades 8-12
CEA	Professional Certificate For College Faculty, Earth Science, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12

CPH	Professional Certificate For College Faculty, Physics, Grades 8-12
KBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
KCH	Professional Certificate For Teaching Chemistry, Grades 8 Through 12
KEA	Professional Certificate For Teaching Earth Science, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KPH	Professional Certificate For Teaching Physics, Grades 8-12
KPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
R51	Area Specialization: Science Limited To Biology
R52	Area Specialization: Science Limited To Chemistry
R53	Area Specialization: Science Limited To Physics
R56	Area Specialization: Science Limited To Earth Science
WBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
WCH	Professional Certificate For Teaching Chemistry, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WPH	Professional Certificate For Teaching Physics, Grades 8-12
WPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
A94	Area Specialization: Industrial Arts
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW	Approval for Project Lead the Way

## 219903 - Digital Electronics

Grade Level: 9 - 12

Credits: 1

Description: Students use computer simulations to learn about the logic of electronics as they design, test,

and actually construct circuits and devices.

A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science
B50	Teaching Major: Science
B51	Teaching Major: Biology
B52	Teaching Major: Chemistry
B53	Teaching Major: Physics
B54	Teaching Major: Biology-Health
B56	Teaching Major: Earth Science
B57	Teaching Major: Geology
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C50	Teaching Minor: Science

C51	Teaching Minor: Biology
C52	Teaching Minor: Chemistry
C53	Teaching Minor: Physics
C56	Teaching Minor: Earth Science
C57	Teaching Minor: Geology
C71	Teaching Minor: Mathematics
CBI	Professional Certificate For College Faculty, Biology, Grades 8-12
CCH	Professional Certificate For College Faculty, Chemistry, Grades 8-12
CEA	Professional Certificate For College Faculty, Earth Science, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CPH	Professional Certificate For College Faculty, Physics, Grades 8-12
KBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
KCH	Professional Certificate For Teaching Chemistry, Grades 8 Through 12
KEA	Professional Certificate For Teaching Earth Science, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KPH	Professional Certificate For Teaching Physics, Grades 8-12
KPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
R51	Area Specialization: Science Limited To Biology
R52	Area Specialization: Science Limited To Chemistry
R53	Area Specialization: Science Limited To Physics
R56	Area Specialization: Science Limited To Earth Science
WBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
WCH	Professional Certificate For Teaching Chemistry, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WPH	Professional Certificate For Teaching Physics, Grades 8-12
WPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
A94	Area Specialization: Industrial Arts
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW	Approval for Project Lead the Way

## 219904 - Computer Integrated Manufacturing

Grade Level: 9 - 12

Credits: 1

Description: Students learn concepts of robotics and automated manufacturing by creating three-dimensional

designs with modeling software and producing models of their designs.

A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science

Teaching Major: Chemistry	B50	Teaching Major: Science
Teaching Major: Chemistry		
Teaching Major: Biology-Health Teaching Major: Earth Science Teaching Major: Eorlogy Teaching Major: Goology Teaching Major: Computer Science And Mathematics Teaching Major: Computer Science And Mathematics Teaching Major: Computer Science And Mathematics Teaching Minor: Science Teaching Minor: Science Teaching Minor: Biology Teaching Minor: Chemistry Te		
Teaching Major: Biology-Health  Feaching Major: Geology  Feaching Major: Mathematics  Feaching Major: Mathematics  Feaching Major: Mathematics  Feaching Major: Mathematics  Feaching Major: Computer Science And Mathematics  Feaching Minor: Science  Feaching Minor: Geology  Teaching Minor: Mathematics  Feaching Minor: Geology  Teaching Minor: Mathematics  Feaching Minor: Mathematics  Feaching Minor: Mathematics  Feaching Minor: Mathematics  Feaching Minor: Geology  Teaching Minor: Mathematics  Feaching Minor: Mathematics  Feachin		
Teaching Major: Ceology Teaching Major: Ceology Teaching Major: Computer Science And Mathematics Teaching Major: Computer Science And Mathematics Teaching Minor: Science Teaching Minor: Science Teaching Minor: Science Teaching Minor: Chemistry Teaching Minor: Chemistry Teaching Minor: Chemistry Teaching Minor: Mathematics Teaching Minor		
Teaching Major: Geology Teaching Major: Mathematics Teaching Major: Computer Science And Mathematics Teaching Major: Computer Science And Mathematics Teaching Minor: Science Teaching Minor: Science Teaching Minor: Chemistry Teaching Minor: Chemistry Teaching Minor: Chemistry Teaching Minor: Science Teaching Minor: Geology Teaching Minor: Geology Teaching Minor: Geology Teaching Minor: Geology Teaching Minor: Mathematics Teaching Minor: Geology Teaching Minor: Mathematics Teaching Minor: Maior Teaching Teachi		
Teaching Major: Computer Science And Mathematics Teaching Minor: Science Teaching Minor: Science Teaching Minor: Science Teaching Minor: Science Teaching Minor: Chemistry Teaching Minor: Chemistry Teaching Minor: Physics Teaching Minor: Physics Teaching Minor: Mathematics Teaching Minor: Minor: Mathematics Teaching Minor: Mathematics Te		
Teaching Minor: Science  Teaching Minor: Science  Teaching Minor: Science  Teaching Minor: Chemistry  Teaching Minor: Physics  Teaching Minor: Physics  Teaching Minor: Biology  Teaching Minor: Biology  Teaching Minor: Biology  Teaching Minor: Earth Science  Teaching Minor: Geology  Teaching Minor: Geology  Teaching Minor: Mathematics  Teaching Minor: Mathematics		
Teaching Minor: Science  C51 Teaching Minor: Biology  Teaching Minor: Chemistry  C52 Teaching Minor: Earth Science  C57 Teaching Minor: Earth Science  C57 Teaching Minor: Geology  Teaching Minor: Mathematics  C68 Professional Certificate For College Faculty, Chemistry, Grades 8-12  C70 Professional Certificate For College Faculty, Chemistry, Grades 8-12  C71 Teaching Minor: College Faculty, Chemistry, Grades 8-12  C72 Professional Certificate For College Faculty, Chemistry, Grades 8-12  C73 Professional Certificate For College Faculty, Mathematics, Grades 8-12  C74 Professional Certificate For College Faculty, Physics, Grades 8-12  C75 Professional Certificate For College Faculty, Physics, Grades 8-12  C76 Professional Certificate For Teaching Biological Science, Grades 8-12  C77 Professional Certificate For Teaching Grades Grades 8-12  C78 Professional Certificate For Teaching Carth Science, Grades 8-12  C79 Professional Certificate For Teaching Mathematics, Grades 8-12  C70 Professional Certificate For Teaching Mathematics, Grades 8-12  C70 Professional Certificate For Teaching Physical Science, Grades 8-12  C70 Professional Certificate For Teaching Physical Science, Grades 8-12  C70 Professional Certificate For Teaching Physical Science, Grades 8-12  C70 Professional Certificate For Teaching Physical Science, Grades 8-12  C70 Professional Certificate For Teaching Physical Science, Grades 8-12  C71 Professional Certificate For Teaching Grades Gra		
Teaching Minor: Chemistry Teaching Minor: Geology Teaching Minor: Mathematics Teaching Minor: Minor: Mathematics Teaching Minor: Minor: Mathematics Teaching Minor: Ma		
Teaching Minor: Chemistry Teaching Minor: Physics Teaching Minor: Earth Science Teaching Minor: Mathematics Teaching Minor: Mathematics Teaching Minor: Mathematics Total Teaching Mathematics, Grades 8-12 Total Teaching Mathematics, Grades 8-12 Total Teaching Mathematics, Grades 8-12 Total Teaching Mathematics, Grades 8 Through 12 Total Teaching Teaching Mathematics, Grades 8 Through 12 Total Teaching Mathematics, Grades 5 Through 12 Total Teaching Teachi		
C56 Teaching Minor: Brysics C56 Teaching Minor: Gerlogy C71 Teaching Minor: Gerlogy C71 Teaching Minor: Mathematics C81 Professional Certificate For College Faculty, Biology, Grades 8-12 C72 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C73 Professional Certificate For College Faculty, Earth Science, Grades 8-12 C74 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C75 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C76 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C76 Professional Certificate For Teaching Biological Science, Grades 8-12 C77 Professional Certificate For Teaching Ghemistry, Grades 8 Through 12 C78 Professional Certificate For Teaching Ghemistry, Grades 8 Through 12 C79 Professional Certificate For Teaching Bratins Physics, Grades 8-12 C79 Professional Certificate For Teaching Physics, Grades 8-12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C70 Professional Certificate For Teaching Physics, Grades 8 Through 12 C70 Professional Certificate For Teaching Physics, Grades 8 Through 12 C70 Professional Certificate For Teaching Science Limited To Physics C71 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 C71 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 C72 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 C73 Professional Certificate For Teaching Physics, Grades 8 Through 12 C74 Professional Certificate For Teaching Physics, Grades 8 Through 12 C75 Professional Certificate For Teaching Physics, Grades 8 Through 12 C76 Professional Certificate For Teaching Physics, Grades 8 Through 12 C77 Professional Certificate For Teaching Physics, Grades 8 Through 12 C77 Professional Certificate For Teaching Physics, Grades 8 Through 12 C77 Professional Certificate For Teaching Physics Professional Certificate For Teaching Technology Education, Grades 5 Through		
C56 Teaching Minor: Earth Science C57 Teaching Minor: Geology C71 Teaching Minor: Mathematics C81 Professional Certificate For College Faculty, Biology, Grades 8-12 C72 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C73 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C74 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C75 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C76 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 C77 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 C78 Professional Certificate For Teaching Earth Science, Grades 8 Through 12 C79 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 C79 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C70 Professional Certificate For Teaching Physics, Grades 8 Through 12 C70 Professional Certificate For Teaching Physics, Grades S Through 12 C70 Professional Certificate For Teaching Profession		
C71 Teaching Minor: Geology C71 Teaching Minor: Mathematics CBI Professional Certificate For College Faculty, Biology, Grades 8-12 C72 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C73 Professional Certificate For College Faculty, Earth Science, Grades 8-12 C74 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C75 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C76 Professional Certificate For Teaching Biological Science, Grades 8-12 C77 Professional Certificate For Teaching Biological Science, Grades 8-12 C77 Professional Certificate For Teaching Chemistry, Grades 8-12 C77 Professional Certificate For Teaching Chemistry, Grades 8-12 C77 Professional Certificate For Teaching Chemistry, Grades 8-12 C77 Professional Certificate For Teaching Physics, Grades 8-12 C78 Professional Certificate For Teaching Physics, Grades 8-12 C79 Professional Certificate For Teaching Physical Science, Grades 8-12 C79 Professional Certificate For Teaching Physical Science, Grades 8-12 C79 Professional Certificate For Teaching Physical Science, Grades 8-12 C79 Professional Certificate For Teaching Physics D79 Professional Certificate For Teaching Physics D79 Professional Certificate For Teaching Physics D79 Professional Certificate For Teaching Chemistry, Grades 8-12 D79 Professional Certificate For Teaching Chemistry, Grades 8-12 D79 Professional Certificate For Teaching Physics, Grades 8-12 D70 Professional Certificate For Teaching Physics, Grades 8-12 D70 Professional Certificate For Teaching Physics, Grades 8-12 D70 Professional Certificate For Teaching Certificate For Teaching Professional Certificate For Teaching Technology Education, Grades 5-12 D70 Professional Certificate For Teaching Technology Education, Grades		
Teaching Minor: Mathematics Professional Certificate For College Faculty, Biology, Grades 8-12 Professional Certificate For College Faculty, Chemistry, Grades 8-12 Professional Certificate For College Faculty, Earth Science, Grades 8-12 Professional Certificate For College Faculty, Mathematics, Grades 8-12 Professional Certificate For College Faculty, Mathematics, Grades 8-12 Professional Certificate For College Faculty, Mathematics, Grades 8-12 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 Professional Certificate For Teaching Chemistry, Grades 8 Through 12 Professional Certificate For Teaching Earth Science, Grades 8 Through 12 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 Professional Certificate For Teaching Physics, Grades 8-12 Professional Certificate For Teaching For Physics, Grades 8-12 Professional Certificate For Teaching Earth Science, Grades 8 Through 12 Professional Certificate For Teaching Earth Science Professional Certificate For Teaching Earth Science Professional Certificate For Teaching Mathematics, Grades 8 Through 12 Professional Certificate For Teaching Chemistry, Grades 8-12 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 Professional Certificate For Teaching Physical Science, Grades 8 Through 12 Professional Certificate For Teaching Physical Science, Grades 8 Through 12 Professional Certificate For Teaching Physical Science, Grades 8 Through 12 Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12 Professional Certificate For Teaching Physical Science, Grades 8 Through 12 Professional Certificate For Teaching Physical Science, Grades 8 Through 12 Professional Certificate For Teaching Physical Science, Grades 8 Through 12 Professional Certificate For Teaching Technology Education, Grades 5 Through 12 Professio		
CCH Professional Certificate For College Faculty, Biology, Grades 8-12 CCH Professional Certificate For College Faculty, Carrib Science, Grades 8-12 CMA Professional Certificate For College Faculty, Mathematics, Grades 8-12 CMA Professional Certificate For College Faculty, Mathematics, Grades 8-12 CMA Professional Certificate For College Faculty, Physics, Grades 8-12 CMB Professional Certificate For Toughey Faculty, Physics, Grades 8-12 CMB Professional Certificate For Teaching Biological Science, Grades 8 Through 12 CMB Professional Certificate For Teaching Chemistry, Grades 8 Through 12 CMB Professional Certificate For Teaching Mathematics, Grades 8-12 CMB Professional Certificate For Teaching Physical Science, Grades 8 Through 12 CMB Professional Certificate For Teaching Physical Science, Grades 8 Through 12 CMB Professional Certificate For Teaching Physical Science, Grades 8 Through 12 CMB Professional Certificate For Teaching Physical Science, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics Intervent Physics Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Physics, Grades 8 Through 12 CMB Professional Certificate For Teaching Technology Education, Grades 5 Through 12 CMB Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12		
CCH Professional Certificate For College Faculty, Chemistry, Grades 8-12 CMA Professional Certificate For College Faculty, Earth Science, Grades 8-12 Professional Certificate For College Faculty, Mathematics, Grades 8-12 Professional Certificate For College Faculty, Physics, Grades 8-12 REB Professional Certificate For Teaching Blological Science, Grades 8 Through 12 KCH Professional Certificate For Teaching Blological Science, Grades 8 Through 12 KCH Professional Certificate For Teaching Mathematics, Grades 8 Through 12 KCH Professional Certificate For Teaching Mathematics, Grades 8 Through 12 KPH Professional Certificate For Teaching Physics, Grades 8-12 RPS Professional Certificate For Teaching Physics, Grades 8-12 RPS Professional Certificate For Teaching Physics, Grades 8-12 RPS Professional Certificate For Teaching Physics Science, Grades 8 Through 12 RF3 Area Specialization: Science Limited To Biology RF4 Area Specialization: Science Limited To Physics RF5 Area Specialization: Science Limited To Physics RF5 Area Specialization: Science Limited To Earth Science RF6 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 RF7 Professional Certificate For Teaching Chemistry, Grades 8-12 RF7 Professional Certificate For Teaching Physics, Grades 8 Through 12 RF7 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 RF7 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 RF7 Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12 RF7 Professional Certificate For Teaching Technology Education, Grades 5 Through 12 RF7 Professional Certificate For Teaching Technology Education, Grades 5 Through 12 RF8 Professional Certificate For Teaching Technology Education, Grades 5 Through 12 RF8 Professional Certificate For Teaching Technology Education, Grades 5 Through 12 RF8 Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12 RF8 Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12 RF9	C71	
CEA Professional Certificate For College Faculty, Earth Science, Grades 8-12 CMA Professional Certificate For College Faculty, Mathematics, Grades 8-12 Professional Certificate For College Faculty, Mysics, Grades 8-12 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 KCH Professional Certificate For Teaching Earth Science, Grades 8 Through 12 KEA Professional Certificate For Teaching Earth Science, Grades 8-12 KMA Professional Certificate For Teaching Mathematics, Grades 8-12 KPH Professional Certificate For Teaching Physics, Grades 8-12 KPS Professional Certificate For Teaching Physics Of Science, Grades 8 Through 12 KPS Area Specialization: Science Limited To Biology Area Specialization: Science Limited To Earth Science KPS Area Specialization: Science Limited To Earth Science, Grades 8 Through 12 KPS Area Specialization: Certificate For Teaching Physics, Grades 8-12 KPS Professional Certificate For Teaching Physical Science, Grades 8 Through 12 KPS Professional Certificate For Teaching Physical Science, Grades 8 Through 12 KPS Professional Certificate For Teaching Physical Science, Grades 8 Through 12 KPS Professional Certificate For Teaching Professional Gertificate For Teaching Professional Gertificate For Teaching Reinhology Education, Grades 5 Through 12 KPS Professional Certificate For Teaching Technology Education, Grades 5 Through 12 KPS Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12 KPS Professional Certificate F		
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## 219905 - Civil Engineering and Architecture

Grade Level: 9 - 12

Credits: 1

Description: Teams of students collaborate on the development of community -based building projects and conceptual design for project presentations.

Content: Pre-Engineering

Population: General

A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science
B50	Teaching Major: Science
B51	Teaching Major: Biology
B52	Teaching Major: Chemistry
B53	Teaching Major: Physics
B54	Teaching Major: Biology-Health
B56	Teaching Major: Earth Science
B57	Teaching Major: Geology
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C50	Teaching Minor: Science
C51	Teaching Minor: Biology
C52	Teaching Minor: Chemistry
C53	Teaching Minor: Physics
C56	Teaching Minor: Earth Science
C57	Teaching Minor: Geology
C71	Teaching Minor: Mathematics
CBI	Professional Certificate For College Faculty, Biology, Grades 8-12
CCH	Professional Certificate For College Faculty, Chemistry, Grades 8-12
CEA	Professional Certificate For College Faculty, Earth Science, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CPH	Professional Certificate For College Faculty, Physics, Grades 8-12
KBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
KCH	Professional Certificate For Teaching Chemistry, Grades 8 Through 12
KEA	Professional Certificate For Teaching Earth Science, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KPH	Professional Certificate For Teaching Physics, Grades 8-12
KPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
R51	Area Specialization: Science Limited To Biology
R52	Area Specialization: Science Limited To Chemistry
R53	Area Specialization: Science Limited To Physics
R56	Area Specialization: Science Limited To Earth Science
WBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
WCH	Professional Certificate For Teaching Chemistry, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WPH	Professional Certificate For Teaching Physics, Grades 8-12
WPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
A94	Area Specialization: Industrial Arts
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
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WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW	Approval for Project Lead the Way

## 219906 - Engineering Designs and Development

Grade Level: 9 - 12

Credits: 1

Description: Teams of students, guided by community mentors, work together to research, design, and

construct solutions to engineering problems.

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A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science
B50	Teaching Major: Science
B51	Teaching Major: Biology
B52	Teaching Major: Chemistry
B53	Teaching Major: Physics
B54	Teaching Major: Biology-Health
B56	Teaching Major: Earth Science
B57	Teaching Major: Geology
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C50	Teaching Minor: Science
C51	Teaching Minor: Biology
C52	Teaching Minor: Chemistry
C53	Teaching Minor: Physics
C56	Teaching Minor: Earth Science
C57	Teaching Minor: Geology
C71	Teaching Minor: Mathematics
CBI	Professional Certificate For College Faculty, Biology, Grades 8-12
CCH	Professional Certificate For College Faculty, Chemistry, Grades 8-12
CEA	Professional Certificate For College Faculty, Earth Science, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CPH	Professional Certificate For College Faculty, Physics, Grades 8-12
KBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
KCH	Professional Certificate For Teaching Chemistry, Grades 8 Through 12
KEA	Professional Certificate For Teaching Earth Science, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KPH	Professional Certificate For Teaching Physics, Grades 8-12
KPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
R51	Area Specialization: Science Limited To Biology
R52	Area Specialization: Science Limited To Chemistry
R53	Area Specialization: Science Limited To Physics
R56	Area Specialization: Science Limited To Earth Science
WBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
WCH	Professional Certificate For Teaching Chemistry, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WPH	Professional Certificate For Teaching Physics, Grades 8-12
WPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-11
KIEI	From Sional Internship Certificate For Teaching Technology Education, Grades 5-12

KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
A94	Area Specialization: Industrial Arts
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW	Approval for Project Lead the Way

#### 219907 - Aerospace Engineering

Grade Level: 11 - 12

Credits: 1

**Description:** This course will introduce students to aerospace information systems, star sailing or astronautics rocketry, propulsion, and the physics of space science, space life sciences (BioSpace) that includes looking at habitat and crew systems with life support, and the biology of space science, principles of aeronautics,

structures and materials, and systems engineering.

A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science
B50	Teaching Major: Science
B51	Teaching Major: Biology
B52	Teaching Major: Chemistry
B53	Teaching Major: Physics
B54	Teaching Major: Biology-Health
B56	Teaching Major: Earth Science
B57	Teaching Major: Geology
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C50	Teaching Minor: Science
C51	Teaching Minor: Biology
C52	Teaching Minor: Chemistry
C53	Teaching Minor: Physics
C56	Teaching Minor: Earth Science
C57	Teaching Minor: Geology
C71	Teaching Minor: Mathematics
CBI	Professional Certificate For College Faculty, Biology, Grades 8-12
CCH	Professional Certificate For College Faculty, Chemistry, Grades 8-12
CEA	Professional Certificate For College Faculty, Earth Science, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CPH	Professional Certificate For College Faculty, Physics, Grades 8-12
KBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
KCH	Professional Certificate For Teaching Chemistry, Grades 8 Through 12
KEA	Professional Certificate For Teaching Earth Science, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KPH	Professional Certificate For Teaching Physics, Grades 8-12
KPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
R51	Area Specialization: Science Limited To Biology

R52	Area Specialization: Science Limited To Chemistry
R53	Area Specialization: Science Limited To Physics
R56	Area Specialization: Science Limited To Earth Science
WBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
WCH	Professional Certificate For Teaching Chemistry, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WPH	Professional Certificate For Teaching Physics, Grades 8-12
WPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
A94	Area Specialization: Industrial Arts
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW	Approval for Project Lead the Way

#### 219908 - Biotechnical Engineering

Grade Level: 11 - 12

Credits: 1

**Description:** This course includes experiences from the diverse fields of Bio-technology, Bio-engineering, Bio-medical engineering, and Bio-molecular engineering. Lessons engage students in engineering design problems that can be accomplished in a high school setting related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, human interface, bioprocess engineering, forensics, and bio-ethics.

A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science
B50	Teaching Major: Science
B51	Teaching Major: Biology
B52	Teaching Major: Chemistry
B53	Teaching Major: Physics
B54	Teaching Major: Biology-Health
B56	Teaching Major: Earth Science
B57	Teaching Major: Geology
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C50	Teaching Minor: Science
C51	Teaching Minor: Biology
C52	Teaching Minor: Chemistry
C53	Teaching Minor: Physics
C56	Teaching Minor: Earth Science
C57	Teaching Minor: Geology

C71	Teaching Minor: Mathematics
CBI	Professional Certificate For College Faculty, Biology, Grades 8-12
CCH	Professional Certificate For College Faculty, Chemistry, Grades 8-12
CEA	Professional Certificate For College Faculty, Earth Science, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CPH	Professional Certificate For College Faculty, Physics, Grades 8-12
KBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
KCH	Professional Certificate For Teaching Chemistry, Grades 8 Through 12
KEA	Professional Certificate For Teaching Earth Science, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KPH	Professional Certificate For Teaching Physics, Grades 8-12
KPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
R51	Area Specialization: Science Limited To Biology
R52	Area Specialization: Science Limited To Chemistry
R53	Area Specialization: Science Limited To Physics
R56	Area Specialization: Science Limited To Earth Science
WBI	Professional Certificate For Teaching Biological Science, Grades 8 Through 12
WCH	Professional Certificate For Teaching Chemistry, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WPH	Professional Certificate For Teaching Physics, Grades 8-12
WPS	Professional Certificate For Teaching Physical Science, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
KTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTER	Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
A94	Area Specialization: Industrial Arts
A95	Area Specialization: Industrial Education Orientation And Exploration Levels
A99	Area Specialization: Technology Education
AJKT	Adjunct Instructor For Teaching Technology Education, Grades 5-12
COTE	Conditional One-Year Certificate For Technology Education, Grades 5-12
KIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR	Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE	Temporary Provisional Certificate For Technology Education, Grades 5-12
WIT	Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI	Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE	Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI	Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW	Approval for Project Lead the Way

### 219917 - Special Topics, Pre-Engineering

Grade Level: 9 - 12

Credits: 1-4

**Description:** Special Technology Topics allows the teacher to develop a course for in-depth exploration of technological topics. This is a laboratory-based course designed to study a technological system or topic, and/or a recent technological advancement. This study should include how this advancement affects society and/or the environment. A culminating project integrating one or more of the seven contexts of technological literacy and the Kentucky Core Content is encouraged. It should include research, design, construction, analysis, writing, and presenting. Instruction should be enriched through participation in Kentucky Technology Student Association. This course may be 18 to 36 weeks in duration.

A50	Area Specialization: Science
A70	Area Specialization: Mathematics-Physical Science

B50 Teaching Major: Biology B52 Teaching Major: Chemistry B53 Teaching Major: Biology - Health B54 Teaching Major: Biology-Health B55 Teaching Major: Biology-Health B56 Teaching Major: Biology-Health B57 Teaching Major: Geology B71 Teaching Major: Carth Science B74 Teaching Major: Computer Science And Mathematics B75 Teaching Minor: Science B76 Teaching Minor: Science B77 Teaching Minor: Science B77 Teaching Minor: Chemistry B78 Teaching Minor: Chemistry B79 Teaching Minor: Geology B70 Teaching Minor: Mathematics B79 Teaching Minor: Mathematics B
B52   Teaching Major: Chemistry
B53 Teaching Major: Physics B54 Teaching Major: Biology-Health B56 Teaching Major: Earth Science B57 Teaching Major: Geology B71 Teaching Major: Computer Science And Mathematics B74 Teaching Major: Computer Science And Mathematics C50 Teaching Minor: Science C51 Teaching Minor: Biology C52 Teaching Minor: Chemistry C53 Teaching Minor: Chemistry C53 Teaching Minor: Barth Science C57 Teaching Minor: Barth Science C57 Teaching Minor: Geology C71 Teaching Minor: Mathematics C81 Professional Certificate For College Faculty, Biology, Grades 8-12 CCH Professional Certificate For College Faculty, Chemistry, Grades 8-12 CCH Professional Certificate For College Faculty, Mathematics, Grades 8-12 CMA Professional Certificate For College Faculty, Mathematics, Grades 8-12 CMA Professional Certificate For College Faculty, Mathematics, Grades 8-12 CMB Professional Certificate For College Faculty, Mathematics, Grades 8-12 CMB Professional Certificate For Teaching Biological Science, Grades 8 Through 12 KCH Professional Certificate For Teaching Chemistry, Grades 8 Through 12 KCH Professional Certificate For Teaching Barth Science, Grades 8 Through 12 KMA Professional Certificate For Teaching Mathematics, Grades 8 Through 12 KPP Professional Certificate For Teaching Physics, Grades 8-12 KMA Professional Certificate For Teaching Biological Science, Grades 8 Through 12 KPP Professional Certificate For Teaching Physics, Grades 8-12 KMA Professional Certificate For Teaching Physics, Grades 8-12 VPP Professional Certificate For Teaching Physics, Grades 8-12 VPP Professional Certificate For Teaching Biological Science, Grades 8 Through 12 VPP Professional Certificate For Teaching Chemistry, Grades 8-12 VPP Professional Certificate For Teaching Mathematics, Grades 8 Through 12 VPP Professional Certificate For Teaching Physical Science, Grades 8 Through 12 VPP Professional Certificate For Teaching Mathematics, Grades 8 Through 12 VPP Professional Certificate For Teaching Physical Science, Grades 8 Through 12 VPP Professional Certificate
B54 Teaching Major: Biology-Health B56 Teaching Major: Barth Science B57 Teaching Major: Geology B71 Teaching Major: Computer Science And Mathematics C50 Teaching Minor: Science C51 Teaching Minor: Science C51 Teaching Minor: Science C52 Teaching Minor: Chemistry C53 Teaching Minor: Chemistry C54 Teaching Minor: Physics C56 Teaching Minor: Geology C71 Teaching Minor: Geology C71 Teaching Minor: Geology C71 Teaching Minor: Mathematics C68 Professional Certificate For College Faculty, Biology, Grades 8-12 C69 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C60 Professional Certificate For College Faculty, Earth Science, Grades 8-12 C71 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C72 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C73 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C74 Professional Certificate For College Faculty, Physics, Grades 8-12 C75 Professional Certificate For Teaching Biological Science, Grades 8-12 C76 Professional Certificate For Teaching Biological Science, Grades 8-12 C77 Professional Certificate For Teaching Biological Science, Grades 8-12 C78 Professional Certificate For Teaching Biological Science, Grades 8-12 C79 Professional Certificate For Teaching Biological Science, Grades 8-12 C79 Professional Certificate For Teaching Physics, Grades 8-12 C79 Professional Certificate For Teaching Physics (Brades 8-12) C70 Professional Certificate For Teaching Physical Science, Grades 8-12 C70 Professional Certificate For Teaching Physical Science, Grades 8-12 C70 Professional Certificate For Teaching Biological Science, Grades 8-12 C70 Professional Certificate For Teaching Physics C70 Professional Certificate For Teaching Physics C71 Professional Certificate For Teaching Physics C71 Professional Certificate For Teaching Physics C72 Professional Certificate For Teaching Physics C73 Professional Certificate For Teaching Physics Grades 8-12 C75 Professional Certificate For Teaching Physics Grades 8-12 C7
B56 Teaching Major: Geology B71 Teaching Major: Geology B72 Teaching Major: Computer Science And Mathematics B73 Teaching Major: Computer Science And Mathematics C50 Teaching Minor: Science C51 Teaching Minor: Biology C52 Teaching Minor: Chemistry C53 Teaching Minor: Chemistry C54 Teaching Minor: Earth Science C57 Teaching Minor: Geology C71 Teaching Minor: Geology C71 Teaching Minor: Mathematics C81 Professional Certificate For College Faculty, Biology, Grades 8-12 C72 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C73 Teaching Minor: Geology C74 Teaching Minor: Mathematics C81 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C74 Professional Certificate For College Faculty, Earth Science, Grades 8-12 C75 Professional Certificate For College Faculty, Physics, Grades 8-12 C76 Professional Certificate For College Faculty, Physics, Grades 8-12 C77 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 C78 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 C79 Professional Certificate For Teaching Earth Science, Grades 8 Through 12 C79 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physical Science, Grades 8 Through 12 C79 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 C79 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Certificate For Teaching Physics, Grades 8 Through 12 C79 Professional Internship Certificate For Teaching Mathematics, Grades 8 Through 12 C79 Professional Internship Certificate For Teaching Mathematics, Grade
B57 Teaching Major: Geology B71 Teaching Major: Mathematics B74 Teaching Major: Computer Science And Mathematics C50 Teaching Minor: Science C51 Teaching Minor: Biology C52 Teaching Minor: Chemistry C53 Teaching Minor: Chemistry C53 Teaching Minor: Earth Science C56 Teaching Minor: Earth Science C57 Teaching Minor: Geology C71 Teaching Minor: Geology C71 Teaching Minor: Mathematics C68 Professional Certificate For College Faculty, Biology, Grades 8-12 C69 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C70 Professional Certificate For College Faculty, Larth Science, Grades 8-12 C71 Professional Certificate For College Faculty, Physics, Grades 8-12 C72 Professional Certificate For College Faculty, Physics, Grades 8-12 C73 Professional Certificate For Teaching Biological Science, Grades 8-12 C74 Professional Certificate For Teaching Chemistry, Grades 8 Through 12 C75 Professional Certificate For Teaching Earth Science, Grades 8 Through 12 C76 Professional Certificate For Teaching Biological Science, Grades 8-12 C77 Professional Certificate For Teaching Physics, Grades 8-12 C78 Professional Certificate For Teaching Physics, Grades 8-12 C79 Professional Certificate For Teaching Physical Science, Grades 8-12 C79 Professional Certificate For Teaching Physical Science, Grades 8-12 C79 Professional Certificate For Teaching Physical Science, Grades 8-12 C79 Professional Certificate For Teaching Physical Science, Grades 8-12 C79 Professional Certificate For Teaching Biological Science, Grades 8-12 C79 Professional Certificate For Teaching Biological Science, Grades 8-12 C79 Professional Certificate For Teaching Mathematics, Grades 8-12 C79 Professional Certificate For Teaching Physics, Grades 8-12 C79 Professional Certificate For Teaching Physics, Grades 8-12 C79 Professional Certificate For Teaching Physics, Grades 8-12 C70 Professional Certificate For Teaching Physics, Grades 8-12 C70 Professional Certificate For Teaching Physics, Grades 8-12 C70 Professional Certificate For Teaching Physics Grades
B71 Teaching Major: Computer Science And Mathematics C50 Teaching Minor: Science C51 Teaching Minor: Biology C52 Teaching Minor: Chemistry C53 Teaching Minor: Physics C56 Teaching Minor: Bology C71 Teaching Minor: Geology C71 Teaching Minor: Mathematics C81 Professional Certificate For College Faculty, Biology, Grades 8-12 C71 Teaching Minor: Mathematics C81 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C72 Professional Certificate For College Faculty, Chemistry, Grades 8-12 C73 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C74 Professional Certificate For College Faculty, Mathematics, Grades 8-12 C75 Professional Certificate For College Faculty, Physics, Grades 8-12 C76 Professional Certificate For College Faculty, Physics, Grades 8-12 C87 Professional Certificate For Teaching Biological Science, Grades 8-12 C88 Professional Certificate For Teaching Biological Science, Grades 8-12 C89 Professional Certificate For Teaching Mathematics, Grades 8-12 C80 Professional Certificate For Teaching Mathematics, Grades 8-12 C80 Professional Certificate For Teaching Physics, Grades 8-12 C81 Professional Certificate For Teaching Physics, Grades 8-12 C82 Professional Certificate For Teaching Physics, Grades 8-12 C83 Area Specialization: Science Limited To Biology C84 Area Specialization: Science Limited To Physics C85 Area Specialization: Science Limited To Physics C86 Area Specialization: Science Limited To Physics C87 Area Specialization: Science Limited To Physics C88 Area Specialization: Science Limited To Physics C89 Professional Certificate For Teaching Biological Science, Grades 8 Through 12 C80 Professional Certificate For Teaching Mathematics, Grades 8 Through 12 C80 Professional Internship Certificate For Teaching Mathematics, Grades 8 Through 12 C80 Professional Internship Certificate For Teaching Mathematics, Grades 8 Through 12 C80 Professional Internship Certificate For Teaching Mathematics, Grades 8 Through 12 C81 Professional Internship Certificate For Teaching
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WPS Professional Certificate For Teaching Physical Science, Grades 8 Through 12  KMAI Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12  WMAI Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12  KTE Professional Certificate For Teaching Technology Education, Grades 5 Through 12  KTEI Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KMAI Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12 WMAI Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12 KTE Professional Certificate For Teaching Technology Education, Grades 5 Through 12 KTEI Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
WMAI Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12  KTE Professional Certificate For Teaching Technology Education, Grades 5 Through 12  KTEI Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTE Professional Certificate For Teaching Technology Education, Grades 5 Through 12 KTEI Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
KTEI Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
VTCD Probationary Cartificate For Topphing Tophnology Education Crades F Through 12
KTER Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
A94 Area Specialization: Industrial Arts
A95 Area Specialization: Industrial Education Orientation And Exploration Levels
A99 Area Specialization: Technology Education
AJKT Adjunct Instructor For Teaching Technology Education, Grades 5-12
COTE Conditional One-Year Certificate For Technology Education, Grades 5-12
KIT Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITI Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
KITR Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
TPTE Temporary Provisional Certificate For Technology Education, Grades 5-12
WIT Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
WITI Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
WTE Professional Certificate For Teaching Technology Education, Grades 5 Through 12
WTEI Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW Approval for Project Lead the Way

## 219999 - Gateway to Technology (Grades 6-8) (Project Lead the Way)

Grade Level: 6 - 8

Credits: 0

**Description:** This course is "activity oriented" to show students how technology is used in engineering to solve everyday problems. The four instructional units excite and motivate students to use their imaginations and teach them to be creative and innovative, while gaining the skills they need to develop, produce and use

products and services.

Content: Pre-Engineering

Population: General

Provisional Flamentary Cartificate Crades 1 9
Provisional Elementary Certificate, Grades 1-8
Provisional Elementary Certificate, Grades 1-8
Provisional Elementary Certificate, Grades 1-8
Endorsement For Elementary School Classroom Teaching, Grades 1-8
Standard Elementary Certificate, Grades 1-8
Standard Elementary Certificate, Grades 1-8
Standard Elementary Certificate, Grades 1-8
Standard Elementary Certificate, Grades 1-8
Endorsement For Elementary And Secondary Classroom Teaching
Approval For Teaching Middle School Science, Grades 5-9
Middle School Teaching Field: Science
Middle School Teaching Field: Mathematics
Junior High Major: Science
Junior High Major: Biology
Junior High Major: Chemistry
Junior High Major: Biology-Health
Junior High Major: Mathematics
Junior High Semi-Major: Biology
Junior High Semi-Major: Chemistry
Junior High Semi-Major: Physics
Junior High Semi-Major: Earth Science
Junior High Semi-Major: Mathematics
Professional Certificate For Middle Grades Science, Grades 5-9
Professional Certificate For Middle Grades Mathematics, Grades 5-9
Endorsement For Teaching Science, Grades 5-8
Endorsement For Teaching Mathematics, Grades 5-8
Endorsement For Teaching Middle School Science, Grades 5-9
Endorsement For Teaching Middle School Math, Grades 5-9
Professional Certificate for Middle Grades Science, Grades 5-9
Professional Certificate For Teaching Technology Education, Grades 5 Through 12
Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
Probationary Certificate For Teaching Technology Education, Grades 5 Through 12
Area Specialization: Industrial Arts
Area Specialization: Industrial Education Orientation And Exploration Levels
Area Specialization: Technology Education
Adjunct Instructor For Teaching Technology Education, Grades 5-12
Conditional One-Year Certificate For Technology Education, Grades 5-12
Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
Probationary Certificate For Teaching Industrial Technology, Grades 5 Through 12
Temporary Provisional Certificate For Technology Education, Grades 5-12
Professional Certificate For Teaching Industrial Technology, Grades 5 Through 12
Provisional Internship Certificate For Teaching Industrial Technology, Grades 5 Through 12
Professional Certificate For Teaching Technology Education, Grades 5 Through 12

WTEI Provisional Internship Certificate For Teaching Technology Education, Grades 5-12
APLW Approval for Project Lead the Way